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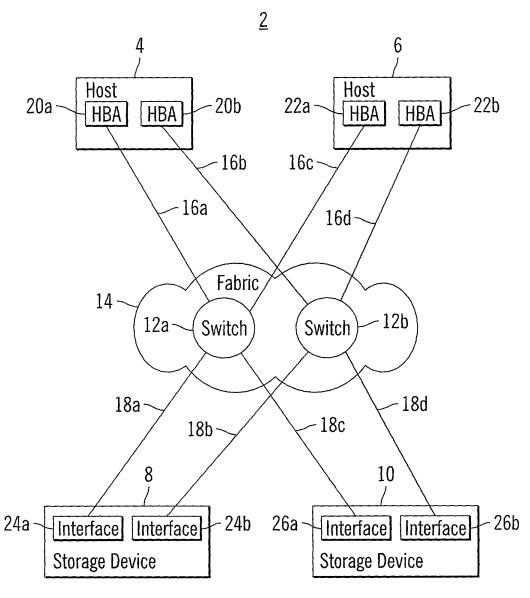
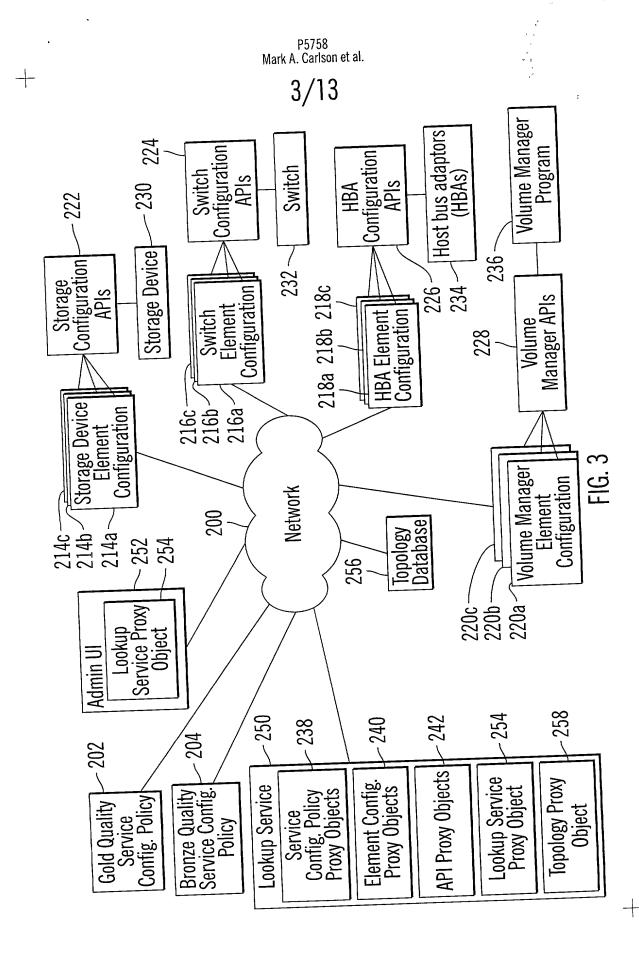


FIG. 1

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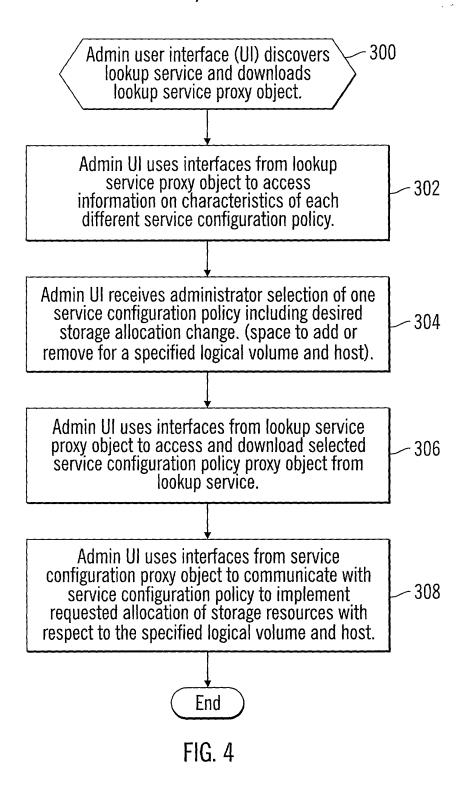
P5758 Mark A. Carlson et al. 2/13 FIG. 2 Resource Lookup Service Proxy Object -124 Administrator UI Configuration Policy Proxy Object Resource APIs **Parameters** Proxy Object Lookup Service Element Lookup Service Config. Policy Proxy Object 126~ 120 Service Config. Policy Proxy Object Lookup Service Proxy Object Service Attributes Service Attributes 100 Network 102 [19m 129a 19a Topology Proxy Object API Proxy Object Service Attributes Proxy Object Service Attributes Topology Database API 140 114 128n 128a l 18a 7108 110 Registered Service Configuration Program Element Proxy Object Proxy Object Service Attributes Lookup Service Service Attributes Element |Service Config. |Policy Lookup Service Proxy Object **Objects**

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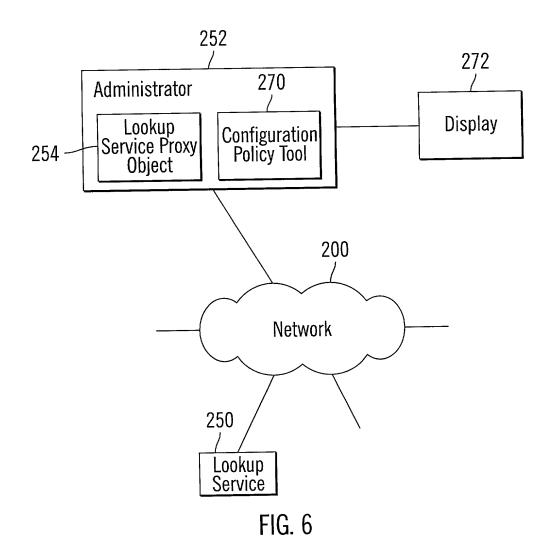


- 350 SERVICE CONFIGURATION POLICY RECEIVES 360 REQUEST FROM ADMIN FOR NEW ALLOCATION OF STORAGE RESOURCES WITH RESPECT TO LOGICAL VOLUME AND LOGICAL VOLUME. STORAGE DEVICE ELEMENT CONFIGURATION POLICY USES DETERMINED STORAGE 352 CONFIGURATION API PROXY OBJECTS (AND APIS THEREIN) TO CONFIGURE THE ASSOCIATED STORAGE DÉVICE(S) TO ALLOCATE STORAGE SERVICE CONFIGURATION POLICY USES SPACE FOR THE REQUESTED ALLOCATION. ASSOCIATED ELEMENT CONFIGURATION PROXY **OBJECTS TO CALL ONE ELEMENT CONFIGURATION** POLICY FOR EACH RESOURCE TO RECONFIGURE 364 AND TO CARRY OUT THE REQUESTED ALLOCATION OF STORAGE RESOURCES FOR HOST AND LOGICAL VOLUME. SWITCH ELEMENT CONFIGURATION POLICY USES DETERMINED SWITCH 354 CONFIGURATION API PROXY OBJECT (AND APIS THEREIN) TO CONFIGURE THE ASSOCIATED SWITCHES TO ALLOCATE PATHS FOR THE REQUESTED ALLOCATION. CALLED STORAGE DEVICE ELEMENT CONFIGURATION POLICY USES INTERFACES IN LOOKUP SERVICE PROXY OBJECT TO QUERY THE 366 SERVICE ATTRIBUTES OF THE STORAGE CONFIGURATION API PROXY OBJECTS TO
DETERMINE ONE OR MORE STORAGE
CONFIGURATION API PROXY OBJECTS CAPABLE OF
CONFIGURATION API PROXY OBJECTS CAPABLE OF
CONFIGURING STORAGE DEVICE(S) HAVING
ENOUGH AVAILABLE SPACE TO FULFILL REQUESTED
STORAGE ALLOCATION WITH A STORAGE TYPE HBA ELEMENT CONFIGURATION USES DETERMINED HBA CONFIGURATION API PROXY OBJECTS (AND APIS THEREIN) TO ASSIGN ASSOCIATED HBA(S) TO THE LEVEL THAT SATISFIES THE ELEMENT DETERMINED PATH. CONFIGURATION POLICY PARAMETERS. 368 356 VOLUME MANAGER ELEMENT CONFIGURATION CALLED SWITCH ELEMENT CONFIGURATION POLICY USES INTERFACES IN LOOKUP SERVICE PROXY OBJECT TO QUERY THE SERVICE ATTRIBUTES OF POLICY USES DETERMINED VOLUME MANAGER API PROXY OBJECTS (AND APIS THEREIN) TO ASSIGN THE ALLOCATED STORAGE SPACE TO THE LOGICAL VOLUMES IN THE HOST SPECIFIED IN THE ADMIN REQUEST. THE SWITCH CONFIGURATION API PROXY OBJECTS TO DETERMINE ONE OR MORE SWITCH CONFIGURATION API PROXY OBJECTS CAPABLE OF CONFIGURING SWITCH(S) INCLUDING PATHS BETWEEN THE DETERMINED STORAGE DEVICES 370 AND SPECIFIED HOST IN A MANNER THAT SATISFIES SERVICE CONFIGURATION POLICY PARAMETERS. RETURN CONFIGURATION COMPLETE TO ADMIN. 358 CALLED HBA ELEMENT CONFIGURATION USES INTERFACES IN LOOKUP SERVICE PROXY OBJECT TO QUERY SERVICE ATTRIBUTES FOR HBA CONFIGURATION API PROXY OBJECTS TO 360 FIG. 5 DETERMINE ONE OR MORE HBA CONFIGURATION API PROXY OBJECTS CAPABLE OF CONFIGURING HOST ADAPTORS THAT CAN CONNECT

TO DETERMINED SWITCHES AND PATHS THEREIN.

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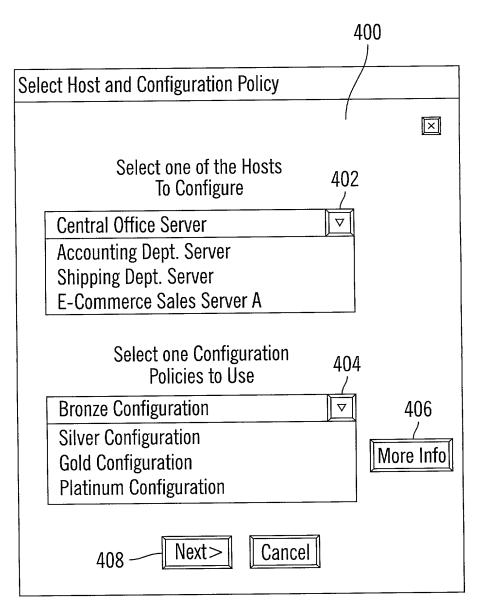


FIG. 7

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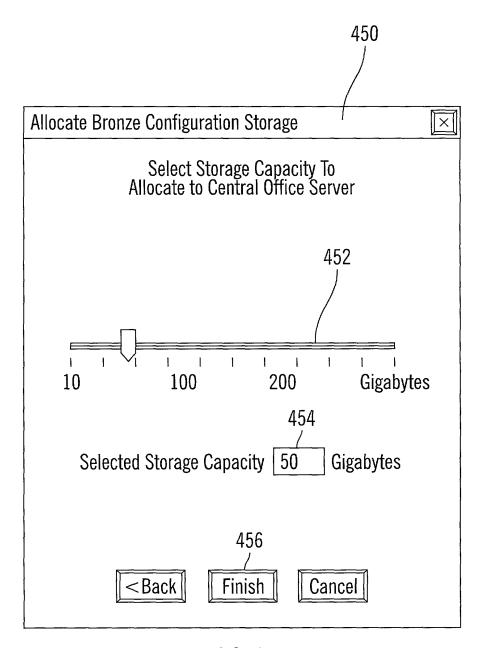
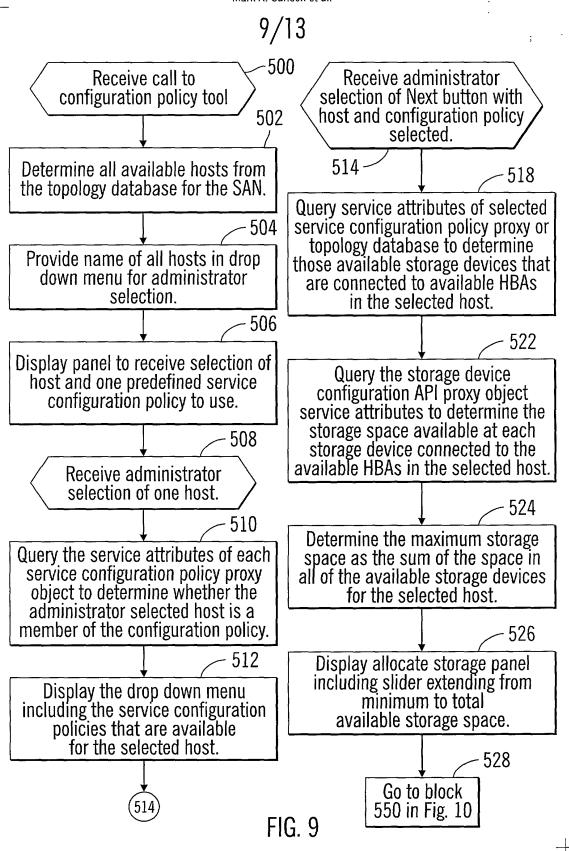


FIG. 8



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550 Receive administrator selection of Next button after slider moved to select amount of storage space to allocate. Determine one or more available storage devices that can provide administrator amount 552 of storage space entered in the panel. Query service attributes for configuration policy or topology database to determine one available HBA in the selected host connected 554 to the determined storage device. Query service attributes for configuration policy or topology database to determine any switches or other components in path between determined available HBA 556 and storage device that is also listed as available in the configuration policy proxy object service attributes. Call selected service configuration policy to apply configuration to determined available HBA, switch, - 558 storage device, and any other components. End

FIG. 10

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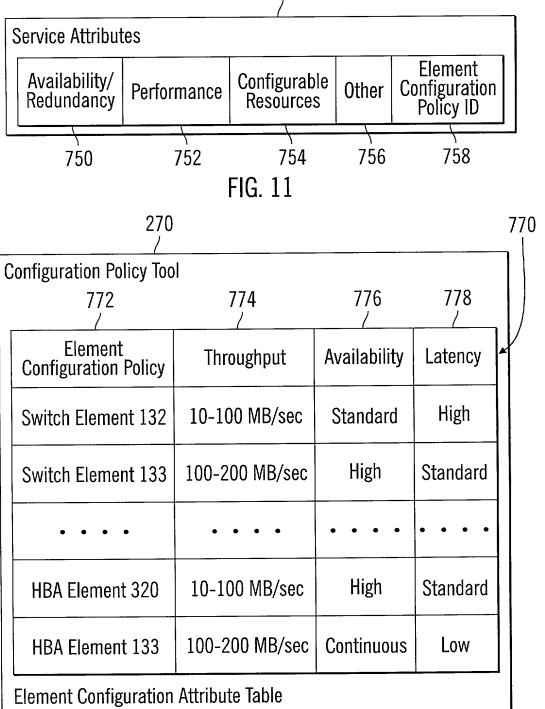


FIG. 12

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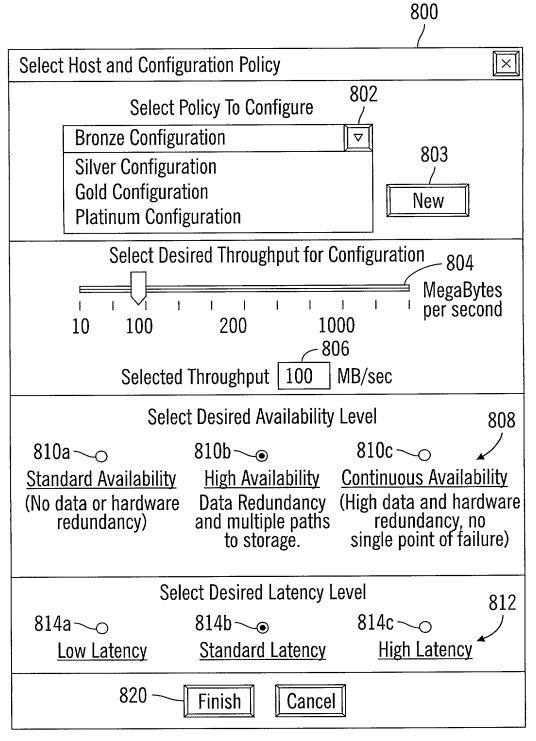


FIG. 13

